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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,055	04/14/2004	William T. Newport	ROC920030403US1	6098
46797 7590 03/15/2010 IBM CORPORATION, INTELLECTUAL PROPERTY LAW DEPT 917, BLDG. 006-1 3605 HIGHWAY 52 NORTH ROCHESTER, MN 55901-7829			EXAMINER MERCHANT, SHAHID R	
			ART UNIT 3694	PAPER NUMBER
			MAIL DATE 03/15/2010	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/824,055

**Applicant(s)**

NEWPORT, WILLIAM T.

**Examiner**

SHAHID R. MERCHANT

**Art Unit**

3694

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 February 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/CD)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Reopening of Prosecution After Board of Appeals Decision***

1. In view of the Board of Appeals Decision on February 18, 2010, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth here below. To avoid abandonment of the Application, Applicant must exercise one of the following two options: (1) file a reply under 37 CFR 1.111 (if this Office Action is non-final) or a reply under 37 CFR 1.113 (if this Office Action is final); or, (2) initiate a new Appeal by filing a notice of Appeal under 37 CFR 41.31 followed by an Appeal Brief under 37 CFR 41.37.

The previously paid notice of Appeal fee and Appeal Brief fee can be applied to the new Appeal. If however, the Appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then Applicant must pay the difference between fees and the amount previously paid (MPEP 1207.04).

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing here below (MPEP 1002.02(d) and 1208.02).

***Status of the Claims***

2. This action is in response to the Board of Appeals Decision on February 18, 2010.

- Claims 1-20 are pending.
- Claims 1-11 have been AFFIRMED on behalf of Examiner.
- Claims 12-20 have been REVERSED, however new art rejection is presented below.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-11 rejected under 35 U.S.C. 102(e) as being anticipated by Serkin et al, U.S. Patent Application Publication 2003/0229567 (see PTO-892, Ref. A).

5. As per claim 1, Serkin teaches a computer-implemented method for dynamically scaling order processing in a securities exchange, comprising:

maintaining one or more books for a security at the securities exchange, wherein the one or more books each list orders related to the security (see paragraph 31);

monitoring a volume of orders related to the security received at the securities exchange (see paragraph 47);

varying the number of books maintained for the security based on the monitored volume of orders (see paragraph 47);

distributing orders related to the security and received at the securities exchange among the books maintained for the security (see paragraphs 45-47); and

balancing the monitored order volume among the books (see abstract).

6. As per claim 2, Serkin teaches the method of claim 1 as described above. Serkin further teaches wherein varying the number of books maintained for the security based on the monitored volume of orders comprises:

upon determining if the monitored volume of orders related to the security exceeds a maximum threshold value (see paragraph 47);

opening a new book for the security (see paragraph 47).

7. As per claim 3, Serkin teaches the method of claim 2 as described above. Serkin further teaches wherein opening a new book for the security comprises creating a logical partition (see paragraph 47).

8. As per claim 4, Serkin teaches the method of claim 2 as described above. Serkin further teaches wherein opening a new book for the security comprises allocating one or more processors to the new book (see paragraphs 46-47).

9. As per claim 5, Serkin teaches the method of claim 2 as described above. Serkin further teaches wherein varying the number of books maintained for the security based on the monitored volume of orders further comprises:

upon determining if the monitored volume of orders related to the security falls below a minimum threshold value (see paragraphs 46-47);

closing one or more books maintained for the security (see paragraphs 46-47).

10. As per claim 6, Serkin teaches the method of claim 5 as described above. Serkin further teaches wherein the maximum threshold value and the minimum threshold values are different (see paragraph 47).

11. As per claim 7, Serkin teaches the method of claim 1 as described above. Serkin further teaches wherein maintaining one or more books for the security at the exchange comprises maintaining at least one book for the security on at least two different servers (see paragraph 46).

12. As per claim 8, Serkin teaches the method of claim 1 as described above. Serkin further teaches wherein monitoring the volume of orders related to the security received at the exchange comprises dividing the total volume of orders related to the security received at the exchange by the number of books maintained for the security (see paragraphs 31 and 45-47).

13. As per claim 9, Serkin teaches the method of claim 1 as described above. Serkin further teaches further comprising publishing the top of each book maintained for the security (see paragraphs 3, 5, 36, 37 and 42).

14. As per claim 10, Serkin teaches the method of claim 9 as described above.

Serkin further teaches further comprising matching an order listed on one of the books maintained for the security with one of the other books maintained for the security (see paragraphs 40, 41 and 43).

15. As per claim 11, Serkin teaches the method of claim 9 as described above.

Serkin further teaches further comprising matching an order listed on one of the books maintained for the security with a book maintained for the security at another exchange (see paragraph 32).

### ***Claim Rejections - 35 USC § 103***

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claims 12-20 rejected under 35 U.S.C. 103(a) as being unpatentable over Serkin et al, U.S. Patent Application Publication 2003/0229567 (see PTO-892, Ref. A) in view of Forrester, U.S. Patent Application Publication 2005/0102676 (see PTO-892, Ref. C).

18. As per claim 12, Serkin teaches a method comprising maintaining one or more books for a security at the securities exchange, wherein the one or more books each list orders related to the security; monitoring a volume of orders related to the security received at the securities exchange; varying the number of books maintained for the

security based on the monitored volume of orders; and distributing orders related to the security and received at the securities exchange among the books maintained for the security (see abstract and paragraphs 31, 45-47). .

Forrester explicitly teaches a computer-readable medium containing a program wherein the program is configured to balance the monitored order volume among the books (see abstract, paragraphs 26, 31-32, 34 and claim 17).

Therefore, it would be prima facie obvious to a person of ordinary skill in the art at the time of the invention to combine the teachings of Serkin and Forrester to have a computer program on a computer-readable medium balance the monitored order volume among the books because it would increase the efficiency of the securities exchange by processing orders faster. See ***KSR International Co. v. Teleflex Inc.***, 82 USPQ2d 1385 (2007).

19. As per claim 13, Serkin and Forrester teach the computer-readable of claim 12 as described above. Serkin further teaches wherein varying the number of books maintained for the security based on the monitored volume of orders comprises: upon determining if the monitored volume of orders related to the security exceeds a maximum threshold value, notifying an administrator and providing the administrator with an interface allowing the administrator to open a new book (see paragraph 47).

20. As per claim 14, Serkin and Forrester teach the computer-readable of claim 12 as described above. Serkin further teaches wherein varying the number of books maintained for the security based on the monitored volume of orders comprises:



upon determining if the monitored volume of orders related to the security exceeds a maximum threshold value, opening a new book for the security (see paragraph 47).

21. As per claim 15, Serkin teaches the computer-readable of claim 12 as described above. Serkin further teaches comprising providing an interface allowing an administrator to specify the maximum threshold value (see paragraph 47).

22. As per claim 16, Serkin teaches the computer-readable of claim 12 as described above. Serkin further teaches providing an interface allowing an administrator to specify how orders related to the security and received at the exchange should be distributed among the books maintained for the security (see paragraphs 31 and 45-47).

23. As per claim 17, Serkin teaches a computer system capable of dynamically allocating resources for processing orders related to a security, comprising:

a processor;

one or more books maintained for the security by a securities exchange, each book listing orders related to the security; and

a memory containing an executable component, which when executed on the processor, is configured to:

monitor a volume of orders related to the security received by the securities exchange,

vary the number of books maintained for the security based on the monitored volume of orders,

distribute orders related to the security and received by the securities exchange among the books maintained for the security, and

balance the monitored order volume among the books (see abstract and paragraphs 31, 45-47).

Forrester explicitly teaches a computer system containing a computer program wherein the program is configured to balance the monitored order volume among the books (see abstract, paragraphs 17, 26, 31-32, 34 and claims 16 and 17 and Figure 1).

Therefore, it would be prima facie obvious to a person of ordinary skill in the art at the time of the invention to combine the teachings of Serkin and Forrester to have a computer system containing a computer program balance the monitored order volume among the books because it would increase the efficiency of the securities exchange by processing orders faster. See *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385 (2007).

24. As per claim 18, Serkin and Forrester teach the computer system of claim 17 as described above. Serkin further teaches wherein the one or more books maintained for the security at the exchange comprises:

at least a first book for the security maintained on a first server; and

at least a second book for the security maintained on a second server (see paragraph 46).

25. As per claim 19, Serkin and Forrester teach the computer system of claim 17 as described above. Serkin further teaches wherein the one or more books are maintained on a computer system having multiple logical partitions (see paragraph 47).

26. As per claim 20, Serkin and Forrester teach the computer system of claim 19 as described above. Serkin further teaches wherein each book is assigned to a different logical partition (see paragraph 47).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHAHID R. MERCHANT whose telephone number is (571)270-1360. The examiner can normally be reached on First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James P. Trammell can be reached on 571-272-6712. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Shahid R Merchant/  
Examiner, Art Unit 3694

/James P Trammell/  
Supervisory Patent Examiner, Art Unit 3694